

Quicklub®

Centralized & Automated Lubrication Systems



"I design Quicklub and other systems to satisfy each customer's unique requirements."

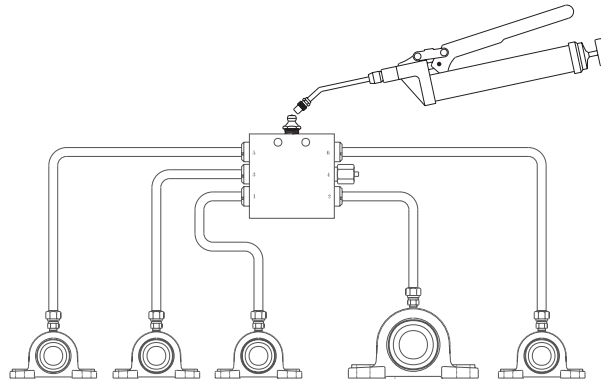
Patrick Sändker, Application Engineer,
Lincoln Industrial Systems House, Walldorf Germany

Quicklub® Lubrication Systems

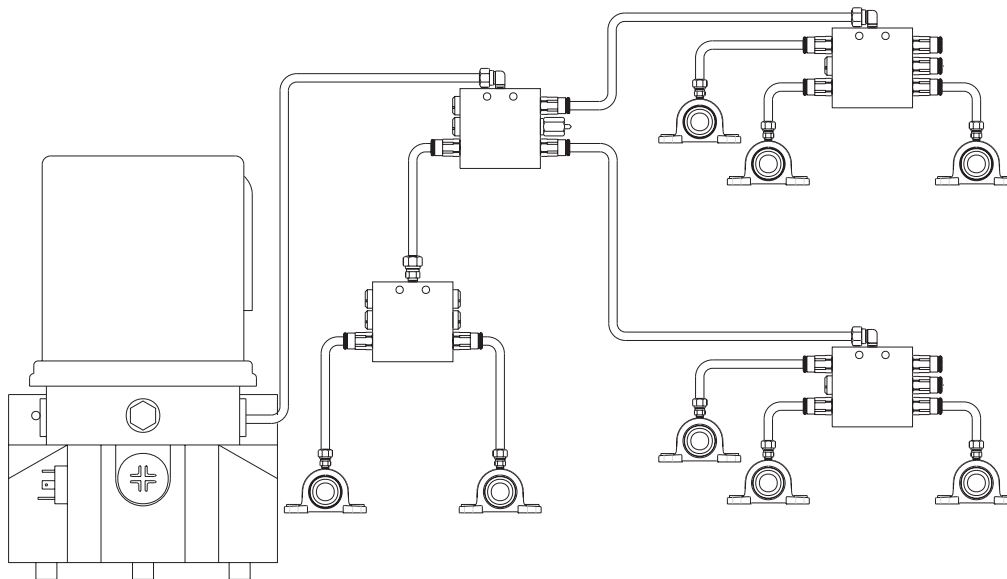
Introduction to Quicklub®

The Lincoln Industrial Quicklub system is designed to provide a relatively simple and inexpensive method of centralizing or automating the lubrication of machinery bearings.

Quicklub can be a simple, centralized system with lubricant supplied manually from a lever gun. Pre-assembled kits are available to service up to 12 points from a single grease fitting. Custom kits can also be provided by our distributors to cover virtually any quantity of points desired.



Quicklub can also be a fully automated system with lubricant supplied by our 12VDC and 24VDC electric or pneumatic pumps. An automated lubrication system typically dispenses small measured amounts of lubricant at frequent intervals while production machines are operating. The electric pumps incorporate an integrated timer for easy installation and trouble-free operation.



Quicklub systems have proven to be the right solution for many industries and applications, eliminating costly, manual point-by-point lubrication. Examples include:

- Packaging
- Lathes
- Beverage industry
- Textile
- Metal Working
- Wood Processing
- Plastic Processing
- Bakery
- Printing
- Punch presses
- Paper Converting
- Milling
- Material Handling Equipment

The heart of the Quicklub® system

More than a drilled manifold block, the valve incorporates a series of metering pistons which accurately dispense lubricant from each outlet, overcoming back pressure of up to 1,000 psi. Visual monitoring is provided with an indicator pin, which confirms a valve has completed a full cycle. Quicklub divider valves are available for grease or oil applications, and in carbon steel and 303 stainless steel for corrosive environments.

Figure 1

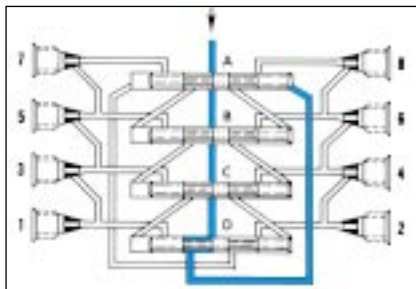


Figure 2

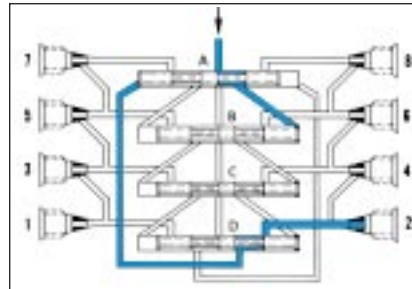


Figure 3

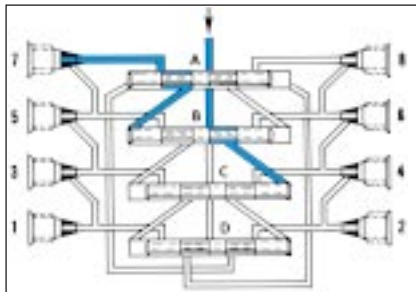
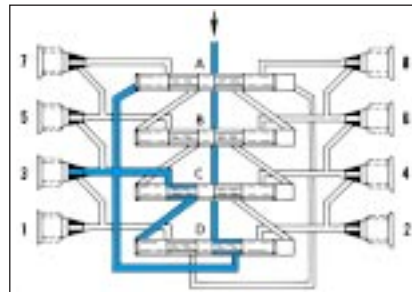


Figure 4



The inlet passageway is connected to all piston chambers at all times with only one piston free to move at any time.

- With all pistons at the far right, lubricant from the inlet flows against the right end of piston A (fig. 1).
- Lubricant flow shifts piston A from right to left, dispensing lubricant through connecting passages to outlet 2. Flow is then directed against the right side of piston B (fig. 2).
- Piston B shifts from right to left, dispensing lubricant through outlet 7. Lubricant flow is directed against the right side of piston C (fig. 3).
- Piston C shifts from right to left, dispensing lubricant through outlet 5. Lubricant flow is directed against the right side of piston D.
- Piston D shifts from right to left, dispensing through outlet 3. Piston D's shift directs lubricant through a connecting passage to the left side of piston A (fig. 4).

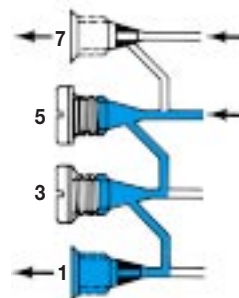
Lubricant flow against the left side of piston A begins the second half-cycle, which shifts pistons from left to right, dispensing lubricant through outlets 1, 8, 6 and 4 of the divider valve.

Crossporting a divider valve

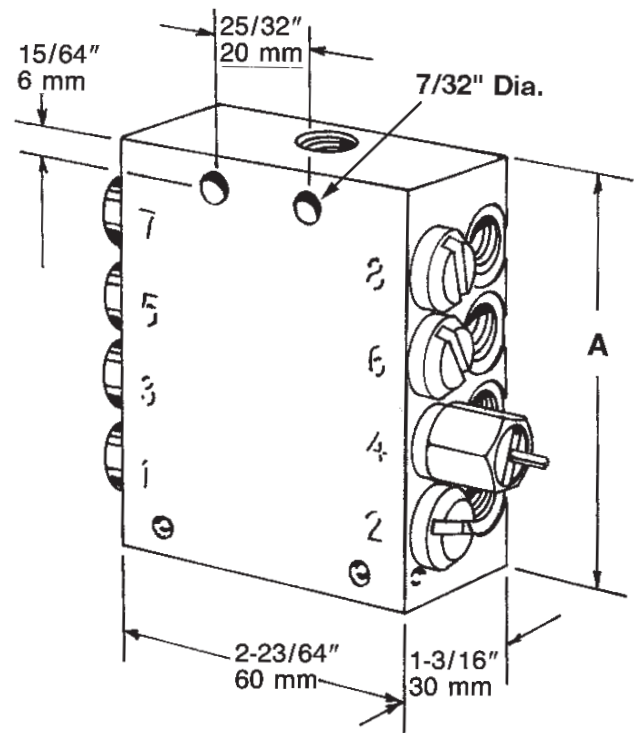
Outputs from adjacent outlets may be combined by installing a closure plug in one or more outlets. Lubricant from a plugged outlet is redirected to the next adjacent outlet in descending numerical order. Outlets 1 and 2 must not be plugged since they have no cross-port passage to the next adjacent outlet.

In figure 5, outlets 5 and 3 are cross-ported and directed through outlet 1. In this example, outlet 1 will dispense three times as much lubricant as outlet 7. The tube ferrules in outlets 1 and 7 block the cross-port passage so that lubricant flow is only directed through outlets.

Figure 5



SSV Divider Valves



The SSV Divider Valve is the “heart” of a manual or automated Quicklub system. Featuring from 6 to 18 outlets, the SSV valve is available in carbon steel and 303 stainless steel for corrosive environments. Valves are available with cycle indicator pins to provide visual indication of system operation.

Specifications:

Construction Material	Maximum Operating Pressure psig / bar	Output/Cycle per Outlet cu. in. / cc	Lubricant Inlet
Carbon Steel	4350 / 300	.012 / .2	1/8" NPTF(F)
Stainless Steel			1/8" BSPP(F)

Note:

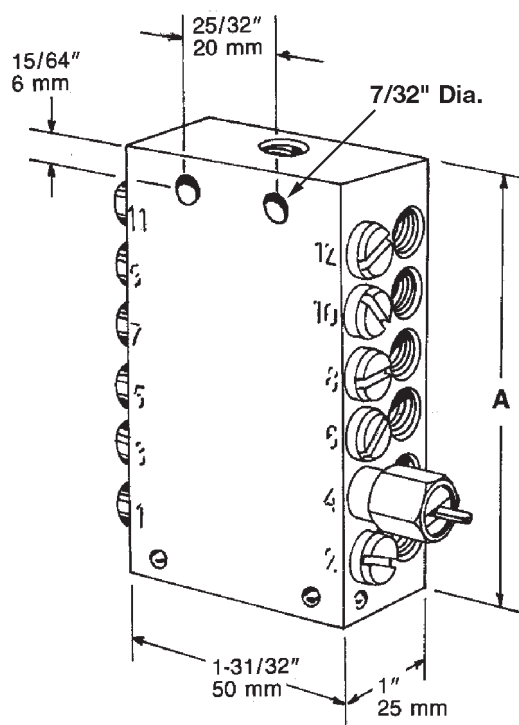
Lubricant outlet must use Lincoln Industrial Quicklub fittings. See Divider Valve Accessories section.

Model No.		Maximum Number of Outlets	Cycle Indicator Pin	Dimension A in. / mm
Carbon Steel	303 Stainless Steel			
619271211		6	No	2.36
619271221	619274721		Yes	60
619263962		8	No	2.95
619266462	619274741		Yes	75
619268441		10	No	3.54
619268452	619274761		Yes	90
619263982		12	No	4.14
619266482	619274781		Yes	105
619272921		18	Yes	6.50 / 165

Note:

You must use outlets 1 and 2 for each of the above referenced models to allow the system to operate properly with the exception of Model 619272921, which requires utilization of outlets 17 and 18.

SSVM Divider Valves



The SSVM Divider Valve is smaller in overall size than the SSV series and provides smaller volume output per outlet. Available with 6 to 12 outlets, the SSVM series valve is used primarily in oil system applications.

Specifications:

Construction Material	Maximum Operating Pressure psig / bar	Output/Cycle per Outlet cu. in. / cc	Lubricant Inlet
Carbon Steel	1450 / 100	.0037 / .06	1/8" NPTF(F)

Note:

Lubricant outlet must use Lincoln Industrial Quicklub fittings. See Divider Valve Accessories section.

Model No.	Maximum Number of Outlets	Cycle Indicator Pin	Dimension A in. / mm
Carbon Steel			
619267641	6	No	1.91 / 48.5
619267653		Yes	
619266501	8	No	2.36 / 60
619266513		Yes	
619268481	10	No	2.81 / 71.5
619268492		Yes	
619266531	12	No	3.26 / 83
619266543		Yes	

Note:

You must use outlets 1 and 2 in all systems.

Divider Valve Outlet Adapters With Check Valves

Quicklub adapters with check valves are for use in all automated systems. SSV adapters are also for use with the Quicklub multiple outlet pump detailed in the pump section of this catalog.



For SSV Divider Valves—Quickline® Push-In Style Fitting for Grease or Oil

Model	Description	Material	Feed Line Connection
244883	One piece assembly	Nickel plated brass	¼" O.D. Tube *

* Use with non-metallic (example: nylon) tubing only.



For SSV Divider Valves—Compression Fitting for Grease or Oil

Model	Description	Material	Feed Line Connection
404226021	Comp. Nut	Carbon Steel	¼" O.D. Steel or Nylon Tube
504316063	Check Valve Body		
404225812	Ferrule	Brass	
68462	Ferrule		



For SSV Divider Valves—Compression Fitting for Oil Only

Model	Description	Material	Feed Line Connection
13112	Comp. Nut	Brass	⅛" O.D. Steel or Nylon Tube
504306401	Valve Body		
404225812	Ferrule		



For SSV Divider Valves—Compression Fitting for Oil Only

Model	Description	Material	Feed Line Connection
13112	Comp. Nut	Carbon Steel	⅛" O.D. Steel or Nylon Tube
519305811	Check Valve Body	Brass	
419226182	Ferrule		



For SSV Divider Valves—⅛" Adapter Grease or Oil

Used primarily for applications requiring an ⅛" NPTF female connection for hose.

Model	Description	Material	Connection
239857	Check Valve Body	Carbon Steel	⅛" NPTF Female
404225812	Ferrule		

Divider Valve Outlet Adapters Without Check Valves

Quicklub adapters without check valves are for use in manual systems where lubricant is supplied from hand grease guns or pneumatic powered lever guns.



For SSV Valves—Quickline® Push-In Style Fitting for Grease or Oil

Model	Description	Material	Feed Line Connection
244884	One piece assembly	Nickel plated brass	¼" O.D. Tube *

* Use with non-metallic (example: nylon) tubing only.



For SSV Valves—Compression Fitting for Grease or Oil

Model	Description	Material	Feed Line Connection
404202364	Comp. Nut	Carbon Steel 303SS	¼" O.D. Steel or Nylon Tube
404236681	Comp. Nut		
404225812	Ferrule	Brass	



For SSV Valves—Compression Fitting for Oil Only

Model	Description	Material	Feed Line Connection
13112	Comp. Nut	Brass	⅛" O.D. Steel or Nylon Tube
404227322	Adapter		
404225812	Ferrule		



For SSVM Valves—Compression Fitting for Oil Only

Model	Description	Material	Feed Line Connection
13112	Comp. Nut	Brass	⅛" O.D. Steel or Nylon Tube
419229901	Adapter		
419226182	Ferrule		



For SSV Valves—⅛" Adapter for Grease or Oil

Used primarily for applications requiring ⅛" NPTF female connection for hose.

Model	Description	Material	Feed Line Connection
239959	Adapter	Carbon Steel	⅛" NPTF Female
404225812	Ferrule	Brass	



Outlet Closure Plug

- With Divider Valves:** Closure plugs divert output to adjacent outlet in descending numerical order. **Do not** plug divider valve outlets #1 or #2.
- With Pump Outlets:** Closure plugs divert output to adjacent outlet in ascending numerical order, or in the case of outlets #7 and #8, back to the reservoir.

Model No.		Material	Fits Divider Valve Series
Closure Plug	Gasket		
303174992	—	Carbon Steel	SSV
—	209121582	Copper	
303193461	Not Required	316TSS	SSV
303175301	—	Carbon Steel	SSVM
—	209124647	Copper	

Lubricant flows through Supply Lines between the pump and divider valves, then through Feed Lines between the divider valves and the bearing. Tubing and/or pipe sizes are determined after considering both the length of the line and the specific lubricant intended for use in the system.

Your Lincoln Industrial representative can assist you in the proper selection of supply and feed line material to optimize your application.

Listed below is a simplified outline of the installation components offered. For a complete listing of products, please refer to the Installation Components catalog.

TUBING

Hydraulic, Steel, Stainless Steel and Nylon

Single and Multiple Tube Clamps

Heavy Duty, Standard Duty, Threaded Sleeve and Snap-On Coupler Tube Fittings

Quickline™ Tubing Adapter

Zerk-Lock™ Grease Fitting Adapters

Non-Metallic

PIPING

Seamless

Continuous Welded

Forged Fittings

Malleable Iron Fittings

316 Stainless Steel Pipe and Fittings

Stainless Steel Fittings

Galvanized Pipe, Threaded Plug and Fittings

ACCESSORIES

Supply, Feed and Bulk Feed Line Hose

Air Hose

Kits for Hose Repair

Heavy-Duty Air Line Quick Disconnects

AIR CONTROL AND ACCESSORIES

Manual Shut-Off Valves

Pressure Gauges

Lubricant Filters and Strainers

AIRCARE™ AIR PREPARATION SYSTEMS

Modular Air Line Filters, Regulators and Lubricators

Integrated/Modular Filter/Regulator with Gauge

Modular Air Line Combination Units

High Capacity Air Line Filters, Regulators and Lubricators

High Capacity Air Line Combination Units

Miniature Air Line Components—Air Line Filter, Regulator and Lubricator

Miniature Air Line Combination Units

Modular Air Line Equipment Accessories:

Lockout Valve, Quick Clamp, Quick Clamp Wall Mounting Bracket, Porting Block, Quick Mount Pipe Adaptors, Manifold Block, Pressure Switch, Panel Nut, Wall Mount Bracket, Tamper Resistant Cover & Seal Wire

Air Line Equipment Accessories:

Wall Mount Bracket, High Capacity; Mounting Bracket and Nut, Miniature; Pressure Gauges

PIPE FITTINGS

Reducing Bushings

Nipples

Couplings

Reducing Couplings

Street Ells

Tees

Crosses

Adapter Unions

Elbows

Pipe Fitting Adapters

Supply Line Swivels

Feed Line Swivels

Anchor and Junction Blocks



Models 94124, 94224 and 94212

These industrial lube pumps are electrically operated and are used in progressive type (Quicklub or Modular Lube) automated lubrication systems. The pump consists of a nylon housing, electric gear motor, and a plastic reservoir with stirring paddle. One model incorporates a built-in timer, with the other two cycled by independent timers or machine controls. The pump's ability to develop high operating pressures allows it to supply lubricant up to NLGI #2 grease in most ambient temperatures.

Model:	94124/94224/94212	
Output/Min Per Element**:	.171 cu. in.	2.8 cc
Reservoir Capacity:	4 lb.	1.8 kg
	122 cu. in.	2000 cc
Lubricant Outlet:	1/8" NPT (F)	
Maximum System Operating Pressure:	3600 psig	248 bar
Enclosure Rating:	IP54*	
Operating Temperature Range:	Min. -13°F	-25°C
	Max. 158°F	70°C
Reservoir Fill Method:	By grease fitting	
Pressure Relief Valve:	4000 psi, +/- 250	276 bar, +/- 17

* Protected from water sprayed in all directions.

** Single 6mm element standard; to increase pump output, add one or two additional element(s) #600268762 and relief valve(s) #249567.

Model Number	Electrical Requirements	Internal Timer Setting			
		On Time (2 min. increments)		Off Time (1 hour increments)	
		Min	Max	Min	Max
94124	24 VDC	2 min.	30 min.	1 hour	15 hours
94224	2 amps	Timer not included with Models 94224 and 94212. Select external timer from System Controls section.			
94212	12 VDC 3.5 amps				



Model 249567 Pressure Relief Valve

Designed to protect supply lines in instances of high pressure caused by a blocked component inlet or extremely cold temperatures. The valve assembly consists of a pressure relief valve, a grease fitting for manual servicing of the system and an 1/8" NPT female supply line connection.



Pump Elements

Model No.	Piston Diameter	Lubricant Output	Max. Operating Pressure	Connection Thread
600268752	5 mm	.122 in ³ /min 2 cm ³ /min	5000 psi 350 bar	G 1/4"
600268762	6 mm	.171 in ³ /min 2.8 cm ³ /min		
600268772	7 mm	.244 in ³ /min 4 cm ³ /min		



Model 604265381 Grease Pump

Includes sheet metal reservoir, spring-loaded follower and filler fitting for refilling of reservoir with 81834 filler pump.

Model:	604265381	
Lubricant:	Grease	
Number of Outlets:	8	
Ratio:	40:1	
Output/Stroke/Outlet:	.018 cu. in.	.3 cc
Reservoir Capacity:	3 lb.	1.5 liter
	91 cu. in.	1500 cc
Air Inlet:	1/8" NPTF Female	
Lube Outlet:	See note #2	
Maximum Lubricant Pressure:	3675 psig	250 bar
Reservoir Level Indication:	Rod	
Fill Method:	Through grease fitting	

Notes:

1. 3-way air valve required for air valve operation.
2. Model 604265381 has integrated Divider Valve with cycle indicator pin and must use Lincoln Industrial Quicklub Fittings. See Divider Valve section for part numbers.
3. One pump stroke will cycle the eight outlet progressive divider valve approximately 1.7 cycles.



Model 604272251 Oil Pump

Includes transparent reservoir.

Model:	604272251	
Lubricant:	Oil	
Number of Outlets:	1	
Ratio:	40:1	
Output/Stroke/Outlet:	.16 cu. in.	2.6 cc
Reservoir Capacity:	3.8 pints	1.8 liter
	110 cu. in.	1800 cc
Air Inlet:	1/8" NPTF Female	
Lube Outlet:	1/4" O.D. tube connection	
Maximum Lubricant Pressure:	4400 psig	300 bar
Reservoir Level Indication:	Visual through transparent reservoir	
Fill Method:	Fill cap and screen	

Note:

1. 3-way air valve required for air valve operation.

The controls listed on the following two pages are designed to control the amount of time the selected system pump is on and the duration between lube events.



Model 84501 Program Timer—Solid State

Designed to control the lubrication cycle frequency of air operated single stroke pumps. Timer turns pump on/off at programmed intervals via a 3-way air solenoid valve (not included) installed in the air line to pump.

Off Time (Cycle Time)		On Time (Pumping Time)		Power Requirements	Approvals	Switch Capacity
Min	Max	Min	Max			
20 Sec.	24 Hrs.	10 Sec.	1 Min. 24 Sec.	120/230 VAC 50/60 Hz	UL, CSA	120 VAC, 5 Amps 230 VAC, 1.5 Amps

Built-In Program Options		Enclosure				Ambient Operating Temperature Range	
3 Hr. Program Memory	Prelube Function	Rating	Dimensions-in./mm			Minimum	Maximum
			Height	Width	Depth		
		NEMA #1	8¼ 210	6⅜ 173	4⅝ 125	0°F -18°C	130°F 54°C

Note:

Refer to Technical Manual for a full explanation of available program options.



Model 84511 Economy Timer for Single Stroke Pumps

Uses a timing motor, cam and Micro-Switch to turn pump off and on. NEMA 1 enclosure, UL and CSA listed. Switch capacity 10 amps non-inductive.

Off Time (Cycle Time)		On Time (Pumping Time)		Power Requirements	Approvals	Switch Capacity
Min	Max	Min	Max			
5 Min.	1 Hr.	30 Sec.	90 Sec.	120 VAC, 60 Hz	UL, CSA	10 Amps

Note: Off-time selectable in 5 minute intervals.

Enclosure			
Rating	Dimensions - in. / mm		
	Height	Width	Depth
NEMA 1	5 / 127	3¼ / 82.5	3½ / 89



Model 84015 Timer—12-24V DC

Solid state timer for automated lubrication systems requiring DC power. Rugged construction with liquid and dust-tight enclosure. Includes manual push button for remote initiation of a lube cycle.

Off Time** (Cycle Time)		Fixed On Time (Pumping Time)	Power Requirements	Switch Capacity
Min.	Max.			
2.5 Min.	80 Min.	75 Sec.	10-30 VDC 25 MA*	5 Amps

* Less load.

** Available selections are 2.5, 5, 10, 20, 40 or 80 minutes.

Enclosure				Ambient Operating Temperature Range	
Rating	Dimensions-in / mm			Minimum	Maximum
	Height	Width	Depth		
NEMA 12	5¼ / 133	3¾ / 79	3 / 76	0°F / -18°C	131°F / 55°C



Electric Solenoid Operated Air Valves

Model	Type	Electrical Characteristics			Air Inlet/ Outlet	Ambient Temp. Range	Cv Factor	Max. Press. psi / bar	Conduit Conn.
		Power Requirements	Inrush Current Amps	Holding Current Amps					
350241	3 Way	110 VAC, 50 Hz 120 VAC, 60 Hz 8.4 VA	.11	.07	¼" NPTF(F)	0° - 140°F -18° - 60°C	1.8	150 10.2	½" NPS(F)
350242		220 VAC, 50 Hz 240 VAC, 60 Hz 8.4 VA							

These kits are designed to service up to 12 points from a single grease fitting utilizing our 12 point SSV series divider valve. The kits, which are available with or without a grease gun, include all componentry required to install the system. Kits are available primed with NLGI #2 grease or non-filled if a specific grade or type of grease is to be used.

These kits effectively replace the concept of using grease fittings mounted to a central manifold with a system that delivers precise amounts of lubricant, fully monitored with the divider valve's indicator pin. Kits include 100' ¼" nylon tubing, 12 straight Quickline™ tube fittings, 12 Zerk-Lock™ adapters, mounting clips and hardware.

Quicklub Centralized Lubrication Kits

Single point kits contain all items required to install a system on your machinery, including a complete installation/service manual. The selection chart describes the models available to meet your specific needs.

Model	Selection Chart Description	Tubing
87311	Kit with single fitting for use with portable grease gun.	Non-filled
87312		Pre-filled
87411	Complete kit with grease gun for permanent mounting.	Non-filled
87412		Pre-filled



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A Complete Line of Lubrication Solutions and Industrial Pumping Products

LINCOLN
INDUSTRIAL

Automated Lubrication



Our automated systems dispense measured amounts of lubricant at predetermined intervals. Systems include Helios® and Duo-Matic™ two-line systems, and Centro-Matic®, Modular Lube®, Quicklub® and ORSCO precision oil lubrication. With our BearingSaver® program, we find the best automated solution for you from our wide range of systems for grease, fluid grease and oil.



General Lubrication

Sometimes a simple approach is the best solution. Our wide range of products includes smaller, self-contained automated lubricators and general lubrication equipment.

Industrial Pumping



Lincoln Industrial has developed specialized pumps and pumping stations to handle the difficult job of transferring thick fluids. From the industry-best PileDriver III® and PowerMaster III® pumps and air motors to specialty pumps, controls and mounting accessories, Lincoln Industrial is the preferred pumping system for many tough applications.

Lincoln Industrial's global distribution network is the best in the industry.

Whatever the service—evaluating your lubrication methods, installing a custom-engineered system, or supplying top-quality manual lubrication products—your Lincoln Industrial distributor makes certain you always get the very best value.

Systems House Distributors

Our systems house distributors offer the highest level of expertise available in the industry. They can custom design a system with the exact combination of Lincoln Industrial components you need. Then, they install the system in your plant with their knowledgeable technicians or work with your personnel to make sure the job is done correctly. Each distributor stocks a full inventory of pumps, metering devices, controllers, monitors and accessories. Each continues to meet our stringent requirements for product, systems and service knowledge. From Los Angeles to London, Boston to Bangkok, Lincoln Industrial's top-of-the-industry systems house distributors will be there when and where you need them.

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